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## DRY-COOKED MEATS. RECORD OF OPERATIONS.

(Roasting, Pot-roasting, Baking, Pan-broiling,  
or Sauteing of Meat, Fowl, or Fish.)

1. Weight of meat, fish, fowl, etc. as purchased.

2. Kind of meat, what cut of meat.

Breed, age and sex of animal; quality and condition of meat, so far as these are known, or can be judged.

3. Description of shape of cut, before trimmed.

Special attention to relative amounts and disposition of fat and lean meat; note particularly, thickness of fat layer on surface of roast which is uppermost as it lies in the pan. (A roast provided with such a layer is self-basting, and will stand a higher oven temperature than one which is not protected with an outside layer of fatty tissues.)

4. Preparation of meat.

Amounts (weights) of fat and waste (gristle, skin, bone, etc.) trimmed off, (see also, paragraph 15), and from what parts of the meat they were removed. (Figure percentage of refuse, compare with figure given in Bulletin 28, Office of Experiment Stations, U.S. Department of Agriculture.) How meat is rolled, tied, trussed, stuffed, skewered, or sewed. Whether meat is seared in hot fat as a preliminary to slower cooking; if so, how long, at what heat, in how much fat, with what added vegetables or other flavoring materials, in covered or uncovered vessel.

Amount of stuffing and materials used for stuffing (if any), in case of roasts or baked meats.

Larding: kinds and amounts of fatty tissue used, how and where applied.

Rubbing or dredging with flour, salt, fat, etc.

Breadding with egg, crumbs; how much of each (sauteed or pan-broiled

meats.)

5. Weight of meat, fowl, fish, etc., after trimmed; also after stuffed or larded, or breaded or dredged, etc., when ready to be cooked.

6. Manner of arranging meat in roasting pan or kettle.

Material, dimensions and shape of pan or kettle; approximate weight; covered or uncovered.

Description of rack, if any; its height above bottom of pan. Or, presence of depression in bottom of pan for drainage of fat, liquid, juices, etc. from meat, its size, shape, depth, and extent.

7. Oven in which baking is done. Size (inside dimensions), material, thickness of walls, fuel, how heat is applied, etc. Shelves, whether heavy wire or iron bars, width of spaces between. Placing of pan in oven, distance from top and bottom of oven; from other shelves, pan of water in oven, or any other body which may influence rate of heat transference into or out of its tissues.

8. Use of cover of any kind of material, over meat; time at which cover is applied, duration of time of application of cover.

Addition of fat or water under or on meat, before or during cooking; how much, its temperature.

Basting of meat, if any; when, how often, how many dippings at each basting, how much at each dipping. State whether liquid used for basting is water or fat or a mixture of these; if so, how much of each. Temperature of basting liquid. State whether basting fat is the fat tried out from the meat itself, or some other fat. Turning of meat in pan; when, how often; whether accomplished by sticking fork into lean or into fat meat, or in some other way. Turning of pan in oven; when, how often; shifting from one shelf to another.

9. Graph showing time of cooking, and temperatures of layer of air surrounding meat during cooking observations, as taken by oven thermometer.

Temperature taken regularly at successive intervals of suitable length. If the time of cooking is more than twenty minutes, temperatures may be taken every five or ten minutes; or even every fifteen minutes, provided time of roasting amounts to several hours. If the time of cooking is less than ten minutes, temperature observations should be taken every minute or half minute.

It is not difficult to mount or to suspend a mercury thermometer so as to record air temperatures within six inches of the surface of the meat, without touching thermometer bulb to the pan or to the meat. In the case of pot-roasting, the thermometer may be put through a rubber stopper inserted into a perforation in the cover of the kettle. But in case of pan-broiling or sauteing in an open skillet, the recording of any temperature at all representative of the rate of heat penetration into the meat, is not an easy matter. In some cases, a "fireless cooker" thermometer may perhaps be used on the bottom of the skillet; either the type of thermometer where the bulb touches the hot radiator (or skillet) directly, or that other type of thermometer which merely records the temperature of a small enclosed pocket of hot air which is in contact with the radiator (or skillet.) It may, however, in some cases, be impossible to record the rate at which heat is applied, more exactly, than to use descriptive terms indicating whether smoking temperature of fat has been reached, or extent to which meat has changed color in a given length of time, etc.

10. Graph showing time of cooking, and temperature attained in center of piece of meat, during cooking. (State whether meat was cooked rare, medium, or well done.)

Observations taken at regular intervals, as described in preceding paragraph.

In case no arrangement for taking temperature of meat while in oven, is possible, temperature in center of meat should be taken immediately at conclusion of cooking period. (Any ordinary chemical thermometer may be used for this purpose.)



11. Record of amount of gas or other fuel used to cook the meat, may well be taken in many cases. This figure should then be reduced to B. T. U.

12. Weight of meat immediately after taken out of oven, or after one hours cooling if convenient. (Figure per cent loss in weight due to cooking. Is this percentage really much lower in case of coal and electric range ovens, than in gas ovens, - as it is sometimes claimed to be?)

13. Weight of "gravy" (juices, fat, etc. in pan).

This weight is of interest, however, only if the amount of fat in it (and perhaps also of solids) can be approximately determined. This could be done by cooling it, removing the solid fat, heating this for a few minutes to drive off the water it contains, weighing it, and subtracting the weight of any added fat used in basting or sauteing, which was not derived from the meat itself. This resulting figure is of course the loss in fat of the meat during cooking. The total fat content of gravy gives an approximation from which the caloric value of the gravy may easily be determined, providing added flour is also weighed.

14. Score of excellence attained by cooked product, using the accompanying score card.

15. Weight of waste (bone, gristle, skin, etc.) trimmed from the cooked meat, either in carving, or that left on the plates. Careful observations should be made, as to amount of rendered fat or grease, fatty tissue, and tough lean scraps left in this waste; and of its ultimate disposition. Upon the utilization or rejection of such material, by the individual eating the meat, and by the housekeeper disposing of table scraps, depend true economy and prevention of waste. Also the figures for protein and calories of many cuts of meat may well be revised to allow for actual protein and calories of meat as eaten, not as purchased or ever as cooked or as served.